

In the claims

The following amendments are made with respect to the claims in the international application PCT/JP2004/019246.

This listing of claims will replace all prior versions and listings of claims in this application.

1 (original). A regulatory agent of Snail activity, which is an isolated DNA of any one of the following (a) to (d):

- (a) a DNA encoding a protein comprising the amino acid sequence of SEQ ID NO: 1, 2, 26, 28, 30, 32, 34, 36, 38, 40, or 42;
- (b) a DNA comprising the sequence of SEQ ID NO: 3, 4, 25, 27, 29, 31, 33, 35, 37, 39, or 41;
- (c) a DNA encoding a protein comprising an amino acid sequence with one or more amino acid substitutions, deletions, insertions, and/or additions in the amino acid sequence of SEQ ID NO: 1, 2, 26, 28, 30, 32, 34, 36, 38, 40, or 42; and
- (d) a DNA hybridizing under stringent conditions with the sequence of SEQ ID NO: 3, 4, 25, 27, 29, 31, 33, 35, 37, 39, or 41.

2 (original). A regulatory agent of Snail activity, which is a vector into which a DNA of any one of the following (a) to (d) is inserted:

- (a) a DNA encoding a protein comprising the amino acid sequence of SEQ ID NO: 1, 2, 26, 28, 30, 32, 34, 36, 38, 40, or 42;
- (b) a DNA comprising the sequence of SEQ ID NO: 3, 4, 25, 27, 29, 31, 33, 35, 37, 39, or 41;

(c) a DNA encoding a protein comprising an amino acid sequence with one or more amino acid substitutions, deletions, insertions, and/or additions in the amino acid sequence of SEQ ID NO: 1, 2, 26, 28, 30, 32, 34, 36, 38, 40, or 42; and

(d) a DNA hybridizing under stringent conditions with the sequence of SEQ ID NO: 3, 4, 25, 27, 29, 31, 33, 35, 37, 39, or 41.

3 (original). A regulatory agent of Snail activity, which is an isolated protein encoded by a DNA of any one of the following (a) to (d):

(a) a DNA encoding a protein comprising the amino acid sequence of SEQ ID NO: 1, 2, 26, 28, 30, 32, 34, 36, 38, 40, or 42;

(b) a DNA comprising the sequence of SEQ ID NO: 3, 4, 25, 27, 29, 31, 33, 35, 37, 39, or 41;

(c) a DNA encoding a protein comprising an amino acid sequence with one or more amino acid substitutions, deletions, insertions, and/or additions in the amino acid sequence of SEQ ID NO: 1, 2, 26, 28, 30, 32, 34, 36, 38, 40, or 42; and

(d) a DNA hybridizing under stringent conditions with the sequence of SEQ ID NO: 3, 4, 25, 27, 29, 31, 33, 35, 37, 39, or 41.

4 (currently amended). An agent for suppressing Snail activity, which is:

(a) an antisense oligonucleotide targeting a DNA sequence comprising the sequence of SEQ ID NO: 3, 4, 25, 27, 29, 31, 33, 35, 37, 39, or 41; or

(b) a double-stranded RNA comprising a sequence identical or similar to a portion of a DNA comprising the sequence of SEQ ID NO: 3, 4, 25, 27, 29, 31, 33, 35, 37, 39, or 41.

5 (cancelled).

6 (original). A pharmaceutical for treating cancer, which comprises a nucleotide or vector of any one of the following (a) to (c), as an active ingredient:

- (a) an antisense oligonucleotide of a DNA comprising the sequence of SEQ ID NO: 3;
- (b) a vector into which an antisense oligonucleotide of a DNA comprising the sequence of SEQ ID NO: 3 is inserted; and
- (c) an oligonucleotide that is a double-stranded RNA comprising a sequence identical or similar to a portion of a DNA comprising the sequence of SEQ ID NO: 3.

7 (currently amended). A pharmaceutical for treating cancer, which comprises, ~~the agent for suppressing Snail activity of claim 4 or 5~~ as an active ingredient, an agent for suppressing Snail activity, which is:

- (a) an antisense oligonucleotide targeting a DNA sequence comprising the sequence of SEQ ID NO: 3, 4, 25, 27, 29, 31, 33, 35, 37, 39, or 41; or
- (b) a double-stranded RNA comprising a sequence identical or similar to a portion of a DNA comprising the sequence of SEQ ID NO: 3, 4, 25, 27, 29, 31, 33, 35, 37, 39, or 41.

8 (original). An EMT-inducing agent, which is an isolated DNA of any one of the following (a) to (d):

- (a) a DNA encoding a protein comprising the amino acid sequence of SEQ ID NO: 1, 2, 26, 28, 30, 32, 34, 36, 38, 40, or 42;
- (b) a DNA comprising the sequence of SEQ ID NO: 3, 4, 25, 27, 29, 31, 33, 35, 37, 39, or 41;
- (c) a DNA encoding a protein comprising an amino acid sequence with one or more amino acid substitutions, deletions, insertions, and/or additions in the amino acid sequence of SEQ ID NO: 1, 2, 26, 28, 30, 32, 34, 36, 38, 40, or 42; and

(d) a DNA hybridizing under stringent conditions with the sequence of SEQ ID NO: 3, 4, 25, 27, 29, 31, 33, 35, 37, 39, or 41.

9 (original). An EMT-inducing agent, which is a vector into which a DNA of any one of the following (a) to (d) is inserted:

(a) a DNA encoding a protein comprising the amino acid sequence of SEQ ID NO: 1, 2, 26, 28, 30, 32, 34, 36, 38, 40, or 42;

(b) a DNA comprising the sequence of SEQ ID NO: 3, 4, 25, 27, 29, 31, 33, 35, 37, 39, or 41;

(c) a DNA encoding a protein comprising an amino acid sequence with one or more amino acid substitutions, deletions, insertions, and/or additions in the amino acid sequence of SEQ ID NO: 1, 2, 26, 28, 30, 32, 34, 36, 38, 40, or 42; and

(d) a DNA hybridizing under stringent conditions with the sequence of SEQ ID NO: 3, 4, 25, 27, 29, 31, 33, 35, 37, 39, or 41.

10 (original). An EMT-inducing agent, which is an isolated protein encoded by a DNA of any one of the following (a) to (d):

(a) a DNA encoding a protein comprising the amino acid sequence of SEQ ID NO: 1, 2, 26, 28, 30, 32, 34, 36, 38, 40, or 42;

(b) a DNA comprising the sequence of SEQ ID NO: 3, 4, 25, 27, 29, 31, 33, 35, 37, 39, or 41;

(c) a DNA encoding a protein comprising an amino acid sequence with one or more amino acid substitutions, deletions, insertions, and/or additions in the amino acid sequence of SEQ ID NO: 1, 2, 26, 28, 30, 32, 34, 36, 38, 40, or 42; and

(d) a DNA hybridizing under stringent conditions with the sequence of SEQ ID NO: 3, 4, 25, 27, 29, 31, 33, 35, 37, 39, or 41.

11 (currently amended). An EMT-suppressing agent, which is:

(a) an antisense oligonucleotide targeting a DNA sequence comprising the sequence of SEQ ID NO: 3, 4, 25, 27, 29, 31, 33, 35, 37, 39, or 41; or

(b) a double-stranded RNA comprising a sequence identical or similar to a portion of a DNA comprising the sequence of SEQ ID NO: 3, 4, 25, 27, 29, 31, 33, 35, 37, 39, or 41.

12 (cancelled).

13 (currently amended). A pharmaceutical for treating cancer, which comprises, ~~the EMT suppressing agent of claim 11 or 12~~ as an active ingredient, an EMT-suppressing agent, which is:

(a) an antisense oligonucleotide targeting a DNA sequence comprising the sequence of SEQ ID NO: 3, 4, 25, 27, 29, 31, 33, 35, 37, 39, or 41; or

(b) a double-stranded RNA comprising a sequence identical or similar to a portion of a DNA comprising the sequence of SEQ ID NO: 3, 4, 25, 27, 29, 31, 33, 35, 37, 39, or 41.

14 (original). A method of screening for a candidate substance for an agent for suppressing Snail activity, wherein the method comprises the following steps of (a) to (c):

(a) injecting a vector which comprises a reporter gene operably linked under the control of the E-cadherin promoter, and a test substance into a one-cell-stage embryo;

(b) measuring the expression level of the reporter gene; and

(c) selecting a compound that reduces or increases the measured expression level of the reporter gene, compared with the measured expression level in the absence of the test substance.

15 (currently amended). A wound healing agent, which comprises ~~the regulatory agent of Snail activity of any one of claims 1 to 3, or the EMT inducing agent of any one of claims 8 to 10~~, as an active ingredient:

(A) a regulatory agent of Snail activity, which is an isolated DNA of any one of the following (a) to (d):

(a) a DNA encoding a protein comprising the amino acid sequence of SEQ ID NO: 1, 2, 26, 28, 30, 32, 34, 36, 38, 40, or 42;

(b) a DNA comprising the sequence of SEQ ID NO: 3, 4, 25, 27, 29, 31, 33, 35, 37, 39, or 41;

(c) a DNA encoding a protein comprising an amino acid sequence with one or more amino acid substitutions, deletions, insertions, and/or additions in the amino acid sequence of SEQ ID NO: 1, 2, 26, 28, 30, 32, 34, 36, 38, 40, or 42; and

(d) a DNA hybridizing under stringent conditions with the sequence of SEQ ID NO: 3, 4, 25, 27, 29, 31, 33, 35, 37, 39, or 41; or

(B) a regulatory agent of Snail activity, which is an isolated protein encoded by a DNA of any one of the following (a) to (d):

(a) a DNA encoding a protein comprising the amino acid sequence of SEQ ID NO: 1, 2, 26, 28, 30, 32, 34, 36, 38, 40, or 42;

(b) a DNA comprising the sequence of SEQ ID NO: 3, 4, 25, 27, 29, 31, 33, 35, 37, 39, or 41;

(c) a DNA encoding a protein comprising an amino acid sequence with one or more amino acid substitutions, deletions, insertions, and/or additions in the amino acid sequence of SEQ ID NO: 1, 2, 26, 28, 30, 32, 34, 36, 38, 40, or 42; and

(d) a DNA hybridizing under stringent conditions with the sequence of SEQ ID NO: 3, 4, 25, 27, 29, 31, 33, 35, 37, 39, or 41; or

(C) an EMT-inducing agent, which is an isolated DNA of any one of the following (a) to (d):

(a) a DNA encoding a protein comprising the amino acid sequence of SEQ ID NO: 1, 2, 26, 28, 30, 32, 34, 36, 38, 40, or 42;

(b) a DNA comprising the sequence of SEQ ID NO: 3, 4, 25, 27, 29, 31, 33, 35, 37, 39, or 41;

(c) a DNA encoding a protein comprising an amino acid sequence with one or more amino acid substitutions, deletions, insertions, and/or additions in the amino acid sequence of SEQ ID NO: 1, 2, 26, 28, 30, 32, 34, 36, 38, 40, or 42; and

(d) a DNA hybridizing under stringent conditions with the sequence of SEQ ID NO: 3, 4, 25, 27, 29, 31, 33, 35, 37, 39, or 41 or

(D) an EMT-inducing agent, which is an isolated protein encoded by a DNA of any one of the following (a) to (d):

(a) a DNA encoding a protein comprising the amino acid sequence of SEQ ID NO: 1, 2, 26, 28, 30, 32, 34, 36, 38, 40, or 42;

(b) a DNA comprising the sequence of SEQ ID NO: 3, 4, 25, 27, 29, 31, 33, 35, 37, 39, or 41;

(c) a DNA encoding a protein comprising an amino acid sequence with one or more amino acid substitutions, deletions, insertions, and/or additions in the amino acid sequence of SEQ ID NO: 1, 2, 26, 28, 30, 32, 34, 36, 38, 40, or 42; and

(d) a DNA hybridizing under stringent conditions with the sequence of SEQ ID NO: 3, 4, 25, 27, 29, 31, 33, 35, 37, 39, or 41.

16 (currently amended). An anti-inflammatory agent, which comprises ~~the agent for suppressing Snail activity of claim 4 or 5, or the EMT-suppressing agent of claim 11 or 12, as an active ingredient, an agent for suppressing Snail activity, which is:~~

(a) an antisense oligonucleotide targeting a DNA sequence comprising the sequence of SEQ ID NO: 3, 4, 25, 27, 29, 31, 33, 35, 37, 39, or 41; or

(b) a double-stranded RNA comprising a sequence identical or similar to a portion of a DNA comprising the sequence of SEQ ID NO: 3, 4, 25, 27, 29, 31, 33, 35, 37, 39, or 41;

or an EMT-suppressing agent, which is:

a) an antisense oligonucleotide targeting a DNA sequence comprising the sequence of SEQ ID NO: 3, 4, 25, 27, 29, 31, 33, 35, 37, 39, or 41; or

b) a double-stranded RNA comprising a sequence identical or similar to a portion of a DNA comprising the sequence of SEQ ID NO: 3, 4, 25, 27, 29, 31, 33, 35, 37, 39, or 41.

17 (original). A regulatory agent of a protein activity that requires Zn, which comprises a protein comprising the amino acid sequence of SEQ ID NO: 1, 2, 26, 28, 30, 32, 34, 36, 38, 40, or 42 as an active ingredient.